

CLAIMS

1. Ultra high molecular weight polyethylene
molded articles having molecular orientation or crystal
orientation.

2. The molded articles of Claim 1, wherein the
ultra high molecular weight polyethylene having molecular
orientation or crystal orientation is crosslinked
slightly.

3. The molded articles of Claim 1 or 2, wherein
a melting point of the ultra high molecular weight
polyethylene molded article is 135° to 155°C.

4. Artificial joints comprising the molded
article of any one of Claims 1 to 3.

5. A method for producing an ultra high
molecular weight polyethylene molded article having
molecular orientation or crystal orientation, wherein the
ultra high molecular weight polyethylene molded article is
crosslinked slightly by irradiating a high energy ray and
introducing a very small amount of crosslinking points
into molecular chains, and the crosslinked ultra high
molecular weight polyethylene molded article is
compression-deformed after heating up to a compression
deformable temperature and then cooled with keeping the
deformed state.

6. The method of Claim 5, wherein the high
energy ray is a radioactive ray and a dose of the
irradiation is 0.01 to 5.0 MR.

7. The method of Claim 5 or 6, wherein the
compression-deformable temperature is a temperature in the
range of a melting point of the crosslinked ultra high
molecular weight polyethylene minus 50°C to the melting

point plus 80°C.

sub
D6

8. The method of ^{claim 5 or 6}~~Claim 5, 6 or 7~~ wherein a weight-average molecular weight of the ultra high molecular weight polyethylene before irradiation is 2 to 8 million.

add B5

add C4

add E1